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HOW TO MAKE A VICTORY GARDEN



**HERTZOG'S
SEEDS**

342 South Sixth Street
READING, PA.
Phone 4-8641

VITAMINS

VITALITY

VICTORY





This year, there is no question about it—you must have a Victory Garden. It is the *only* way you and your family can have both the fresh and canned foods that you have been accustomed to; it is the *only* way

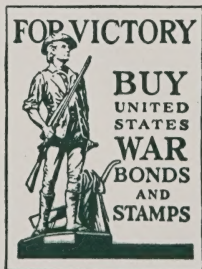
America can produce the vast trainloads and shiploads of food our own fighters and workers and our allies *must* have in order to win the war; it is one way in which *you* can contribute directly to this victory.

Why YOUR Victory Garden is Vital to America

- 1: There simply is not enough food in this country to take proper care of the needs of our own people and of other nations whom we *must* supply.
- 2: With many millions of agricultural workers now in the armed forces and in factories, the only possible way to make up this deficiency is from the home vegetable garden.
- 3: Fresh and canned food that is *eaten where it is grown* saves freight cars and trucks for war transportation as well as thousands of tons of metal ordinarily required for cans.
- 4: A better supply of vitamin-rich vegetables is today absolutely necessary to insure a stronger, healthier nation of fighters and workers.

Why YOUR Victory Garden is Vital to Your Family

- 1: Many canned foods are no longer available; many fresh foods are limited or not available when you want them. If you want your family to be able to eat as it is accustomed to, *the only sure way is to grow your own.*
- 2: Your family will enjoy a better balanced, vitamin-rich diet as well as a tastier one.
- 3: Money saved on the food bill will buy War Bonds and Stamps.
- 4: Exercise, sunshine, fresh air and an interesting hobby to replace sports and motoring.
- 5: Morale: your health, your home improve—and you're directly helping to win the war.



PLANNING YOUR VICTORY GARDEN

Every Victory garden, large or small, should be planned on paper before it is planted. On the following pages we will show you how easy it is to make up your plan, which then enables you to estimate the amount of seed you will need and the size of crop it should produce.

Even a small garden plot, if properly planned, amply fertilized and used to keep something growing all thru the season, will produce a

surprising lot of fresh vegetables for the table. On Pages 4-5 we show a plan for a highly productive garden only 15½ feet square. A plot 20x50 feet (as shown on Pages 6-7) can supply a family of four all season with some left for canning. A space 30x90 (as shown on Pages 8-9) will produce enough for a large family with a minimum of successive planting and also allow a 3-year rotation of crops.

First Rules for Planning

(1) *Give some consideration to your family's positive likes and dislikes.* You want their enthusiastic cooperation. Also, there is no use growing any vegetables which you know won't be eaten.

(2) *Unless you are an experienced gardener, better decide right now to forget about trying to grow perennials* such as asparagus and rhubarb. After all, the easy-to-grow annuals represent most of the vegetables. If you do insist on trying some perennial crop, place it at one side of your plot where it can stay undisturbed for years.

(3) *Plan for a steady succession of crops.* This is a vitally important reason for a paper plan as you can set up a schedule that insures a steady supply of fresh vegetables to your table all season and, where your space is limited, get two, three and possibly four quick-growing crops from a single row. This is accomplished in several ways:

(a) By making successive plantings every two weeks, of beans, peas, radishes, beets, carrots, lettuce, spinach and sweet corn until you have several crops coming on. You can make two plantings of tomatoes and cabbage or, if space is plentiful, you can get the same result by planting, at one time, varieties of the same vegetable which mature at different times.

(b) By raising a crop of early vegetables

and then planting a later crop of different vegetables in the same plot.

(c) By "companion cropping" which means planting two crops at the same time in the same row, of which one will mature before the other.

All this is much simpler than it may sound at first. On Pages 4 to 10 you will find complete garden plans laid out for good successions of crops. On Page 11 you will find a simple table showing you how many days, after planting, various vegetables will mature, how much seed you need to produce a given average yield, how far apart and how deep to plant, and how early you can plant. In addition, most seed catalogs give you this information for your particular locality.

(4) *Plan for vitamins and vitality.* Vegetables are absolutely essential to a balanced diet. Their daily serving is a pleasant economical way to insure a higher degree of family health. When produced in your own garden, they provide minerals, vitamins and other essential food values at the minimum of low cost. On Page 16 you will find a table showing the vitamin content of the various common vegetables, meats, cereals and fruits along with the daily vitamin requirements of adults and children of all ages. This is important information for every family, particularly when planning a Victory Garden.



AMERICA'S EFFICIENCY GARDEN

15 1/2 x 15 1/2 Ft. Plot Provides a Good Share of Crisp, Fresh Vegetables Required for 2 or 3 Persons— Throughout the Season



*This plan reproduced through the courtesy of House Beautiful

Here is the Simple "Paper Plan" for This Efficiency Garden

Each quarter-inch on this diagram represents one foot of garden. The plan is designed to keep every foot of soil in continuous service from spring thaw to autumn frost — big production from a small garden-factory.

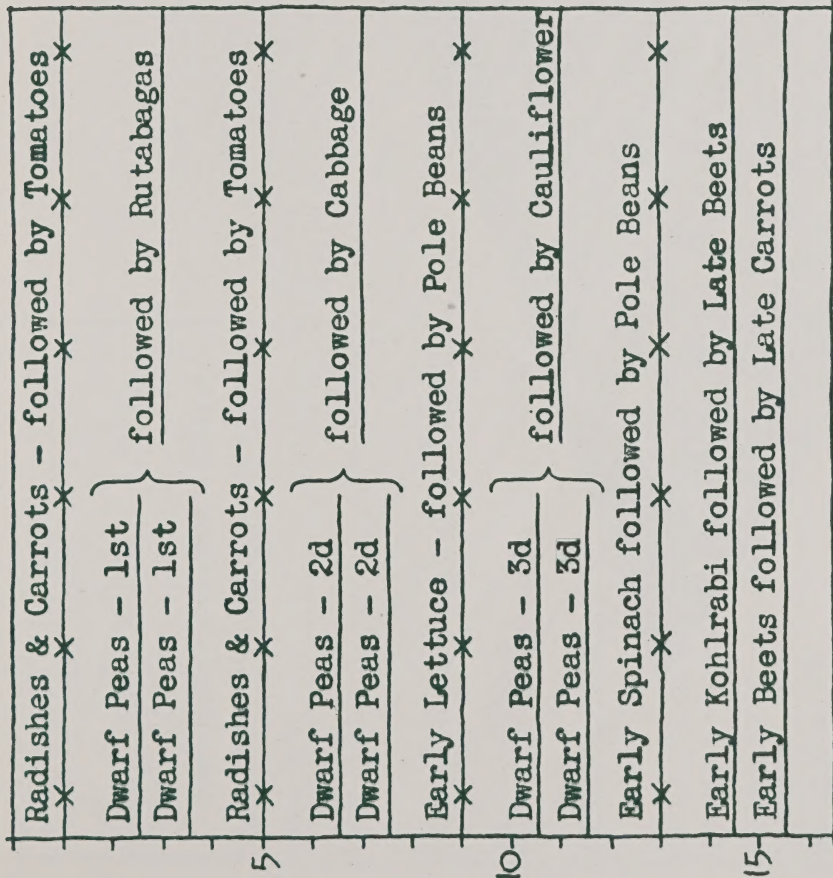
Six rows of dwarf peas give you a total of almost 100 ft. of row. If extra-early, extreme dwarf type like Laxton's Progress is chosen, three plantings at 10-day intervals may be made.

In the first and fourth row, sown with a mixture of radish and carrot seeds, the radishes will be half grown by the time their companion carrots are showing their first shoots. Make successive thinnings. If the lettuce row is planted to a loose-heading variety like Early Simpson, thinnings there will be ready for the salad bowl when only three or four inches long.

Spinach, early beets and kohlrabi complete the early layout. Pole beans will yield more per foot of space than bush beans. With the tomatoes you should pinch off the lower branches and train them to two main trusses only.

Seeds of cabbage and cauliflower to follow the peas may be sown late in May in a sunny window-box.

Two other "paper plans" for small gardens on this same scale are illustrated on Page 10.

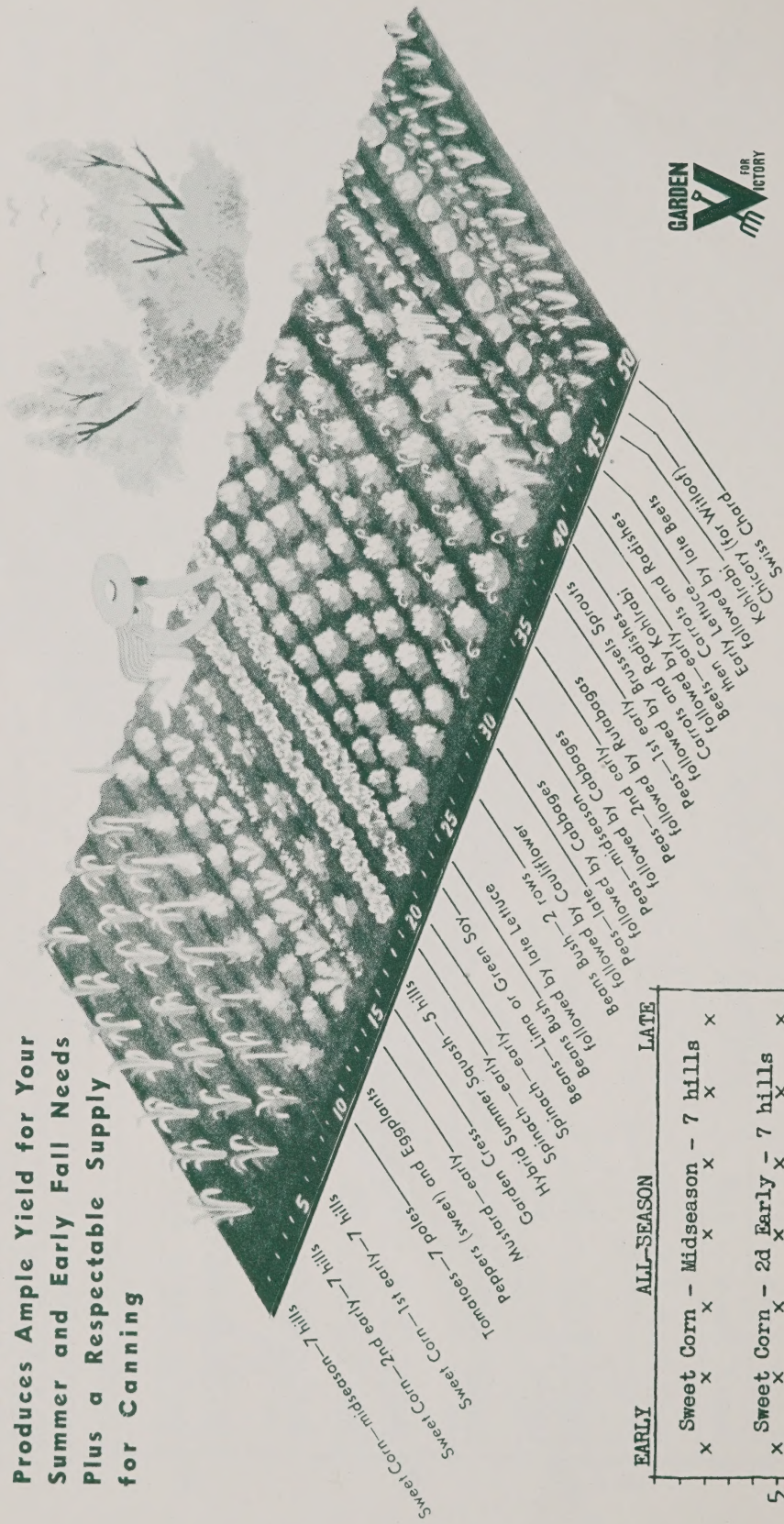


Start now in diagramming *your* Efficiency Garden. This little square of good soil, well prepared and planted with quality seed will produce a big crop of outdoor recreation and vitamin-rich vegetables so woefully needed today by Mr. and Mrs. America! This same plan can easily be increased in size for bigger yield.

FOOD FOR FOUR

20x50 Ft. Plot

Produces Ample Yield for Your Summer and Early Fall Needs Plus a Respectable Supply for Canning



*Plan reproduced through the courtesy of House Beautiful

	EARLY	ALL-SEASON	LATE
Sweet Corn - midseason - 7 hills	x	x	x
Sweet Corn - 2nd early - 7 hills	x	x	x
Sweet Corn - 1st early - 7 hills	x	x	x
Tomatoes - poles	o	o	o
Peppers (sweet) & eggplants	o	o	o
Mustard - Early	o	o	o
Garden Cress	o	o	o
Hybrid Summer Squash - 5 hills	o	o	o
Spinach - Early	o	o	o
Spinach - Early	o	o	o

Here is Your "Paper Plan" for This Garden

Here is Your "Paper Plan" for This Garden

Really two gardens in one (the first crop matures as the second is being planted), this plan offers plenty of choice vegetables for a family of four and some left over for the neighbors or for canning.

With the exception of rutabagas it does not provide a supply of late root crops for storage but in most parts of the country it will still furnish everything for your Thanksgiving dinner except turkey and cranberries, and the rutabagas can be dug for Christmas.

This garden is almost a row-for-row copy of one grown in Long Island by an editor of House Beautiful. With the exception of the four rows of mustard, cress and early spinach, which were planted first and already out of the ground by the time the summer squashes had reached any size, the whole garden was planted in a steady sequence beginning with Swiss chard in mid-April and ending with the midseason corn in late May.

Whenever rows became vacant, succession crops were put in.

Where good winter storage space exists, provision for more late root crops could easily be included in a plan of this type.

15	Peppers (Sweet) & Eggplants Mustard - Early Garden Cress	• • • • • • • • • • • • • • •
20	Hybrid Summer Squash - 5 hills Spinach - Early Spinach - Early Beans - Lima or Green Soy	• • • • • • • • • • • • • • • • • • • •
25	Beans Bush Beans Bush Beans Bush Peas - Late	Lettuce - Late Cauliflower Cauliflower Cabbages
30	Peas - Midseason Peas - 2d early	Cabbages Rutabagas
40	Peas - 1st early Carrots & Radishes Beets - Early Lettuces Kohlrabi	Brussels Sprouts Kohlrabi Carrots & Radishes Beets - Late Endive
45	Kohlrabi Chicory (for Witloof)	Endive Swiss Chard
50	Swiss Chard	

A FAMILY VICTORY GARDEN

(England's Plan Adapted to American Needs)
30 x 90 Ft. Plot—Adequate
for a Good Sized Family



This garden is adapted from plans prepared by the British government for use by allotment-holders under wartime conditions. To fit American tastes and climate, a part of the large quota of leafy greens is here replaced with sweet corn which will not mature properly in damp, cool English summers. A large increase in the number of tomato plants and moderate increase of the space for green peas and snap beans have also been provided.

With these changes, this English war garden plan is well designed for many sections of the United States where rainfall and temperatures resemble the moderate climate of Delaware, Maryland and Virginia. Furthermore, omitting a few items like winter lettuce and winter and spring cabbages, it can be grown successfully much farther north.

Study of the "weather map" and table on Page 11 and consultation with your local seedsman will help you to determine the suitability of this plan for you.

The plan provides a continuous supply of table vegetables direct from the ground over as many months as possible with a minimum use of either inter-planting or succession cropping.

Here is Your "Paper Plan" for Planting

Note that the plot is divided into A, B and C sections, which can be completely rotated, as shown below, over a three-year period to reduce fertilizer consumption and soil-borne diseases. Why not enlarge the attractiveness of this garden by seeding a border of flowers along one or more sides, letting all members of the family have their "say" in choosing the flowers that will spring from this planting? Thus you will have food for both soul and body.

5-	Utility Area: Seedbeds, Radishes, Parsley, Summer Squash Compost Pile
15	Parsnips - 3 rows 15" apart
20	Carrots Early - 2 rows 12" apart
25	Carrots Maincrop - 3 rows 12" apart
30	Beets Early - 1 row 12"
35	Beets Maincrop - 1 row 12"
40	Potatoes Early-2 rows 2' apart } then
45	Potatoes Maincrop - 6 rows 2' apart
50	Turnips (for tops) 4 rows 12" apart
55	Swiss Chard - 1 row 13" (Sown in early spring)

English Crop Rotation Plan

For several months each spring, Section B is idle except for a few early lettuce and spinach plants, enabling you to thoroughly manure a different one-third of the garden every year. Commercial fertilizer may be used on the remainder.

Year	1942	1943	1944
1	A	C	B
2	B	A	C
3	C	B	A

35	Cabbage - Autumn & Winter - 3 rows 2' x 2'	Preceded by and interplanted sown in 10-day installments with Lettuce and Spinach, and thinned out as used	
40	Cabbage Savoy - 3 rows 2' x 2'		
45	Brussels Sprouts - 2' x 2'		
50	Broccoli - 2' x 2'		
55	Sweet Corn - 3 rows 3' x 3'		
60	Kohlrabi Early followed by Swiss Chard (sown in July)		
65	Onions (sets) - 2 rows	then	Rutabagas - 2 rows 12" apart
	Onions (seeds) - 4 rows	then	Spring Cabbage-2 rows 2' x 2' (in mild climate)
70	Pears Early - 1 row 30"	then	Cauliflower - 2 rows 2' x 2'
	Pears Midseason - 1 row 30"		Leeks - 3 rows 12" apart
75	Pears Late - 1 row 30"		
80	Beans Bush snap - 3 rows 30" apart		
85	Tomatoes - 2 rows 30" x 30"		
90			

POPULAR GARDEN PLANS:

Note that these are laid out on a scale where $\frac{1}{4}$ inch on paper represents one foot of garden. You can use any scale you prefer. Note that proper spaces between rows are indicated.

With these simple plans as a basis you can lay out wider or narrower rows or add to the number of rows of any crops in order to fit the size of your available plot, the size of your family, your preferences in vegetables and your canning or storage program.

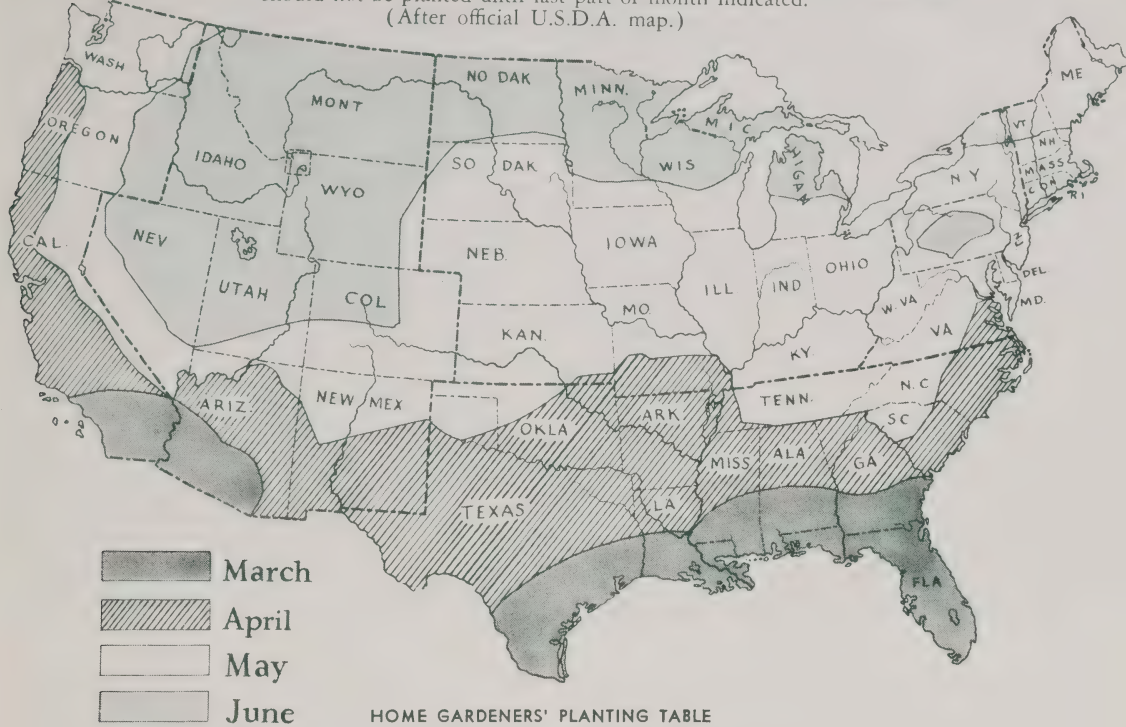
Using the planting table on the opposite page which gives the amount of seed required for each 100 ft. of row and the average yield in vegetables resulting, you can really PLAN — and it is then easy to turn your "Paper Plan" into an actual garden.

Planting dates given are for Ohio. Consult map on opposite page, or your local seedsman, for proper planting dates in your locality.

	RADISHES April 1 - followed by SWEET CORN	6"
	GREEN ONIONS April 1 - followed by SWEET CORN May 15	24"
	LEAF LETTUCE April 1	12"
	TOMATOES May 15	12"
5	PEAS April 1 (companion crop)	15"
	TOMATOES May 15	15"
	PEAS April 1 (companion crop)	15"
	EARLY CABBAGE April 1 - followed by TURNIPS	15"
10	BEETS April 1 - followed by CABBAGE June 1	24"
	POTATOES April 1 - or ONION SETS April 1	18"
	CARROTS April 1 - followed by BUSH BEANS	18"
15		6"

	SWEET CORN May 1	6"
	RADISHES April 1 to 15 - followed by SWEET CORN May 15 (succession crop)	24"
	TOMATOES May 15	24"
5	EARLY PEAS April 1 to 15 (companion crop)	15"
	EARLY CABBAGE April 1 to 15 - followed by TURNIPS (succession crop)	15"
	EARLY PEAS April 1 to 15 (companion crop)	15"
	BEETS April 1 to 15 - followed by CABBAGE June 1 (succession crop)	15"
10	CARROTS April 1 to 15 - followed by BUSH BEANS July 1 (succession crop)	24"
	ONIONS April 1 to 15	18"
	POTATOES April 1 to 15	18"
15		6"

MAP SHOWING LAST KILLING FROSTS. Indicates the months in which earliest sowing of hardy plant seeds may be made in the various sections of the country. Tender seedlings should not be planted until last part of month indicated.
(After official U.S.D.A. map.)



HOME GARDENERS' PLANTING TABLE

Name of Vegetable	Seeds or plants required per 100 ft. of row	Planting for hand cultivation		Depth of planting seed in inches	Ready for use after planting (days)	Yield per 100 ft. of row	Hardiness
		Rows apart in inches	Plants apart in rows in inches				
Asparagus plants (A)	60-80	24-30	15-20	8-10	3 yrs.	30 lbs.	Very hardy
†Beans, bush	1 pint	18-24	4-6	1/2-2	45-65	50 lbs.	Tender
Beans, lima	1/2 pint	24	10	1	60-75	50 lbs.	Tender
Beans, pole	1/2 pint	36-48	38-48D	1-2	45-65	60 lbs.	Tender
†Beets	1 oz.	12-18	2-3	1	50-120	100 lbs.	Hardy
Cabbage, early (B)		24-30	15-18		90-120	100 lbs.	Hardy
Cabbage, late (B)		24-30	24-30		100-135	175 lbs.	Hardy
†Carrot	1/2 oz.	12-18	2-3	1/2	60-120	100 lbs.	Hardy
Cauliflower (B)		24-30	18-24		100-120	45 heads	Hardy
Celery (B)		18-36	4-8		120-150	200 plants	Tender
Chard, Swiss	1 oz.	18-24	6-8	1	50-120	100 lbs.	Hardy
†Corn, sweet	1/4 pint	30-36	12-18	1-2	75-90	100 ears	Tender
Cucumber	1/2 oz.	48-72	48-72D	1	90-130	150 lbs.	Tender
Endive	1/2 oz.	12-18	8-12	1/2-1	60-90	50 lbs.	Hardy
Horseradish	70 roots	24-30	14-20	3-4	120-140	100 roots	Very hardy
Kale	1/4 oz.	18-24	12-24	1/2-1	90-100	50 lbs.	Hardy
Kohlrabi	1/4 oz.	15-18	4-8	1/2	60-90	100 lbs.	Hardy
†Lettuce	1/2 oz.	12-18	4-12	1/2	60-90	50 lbs.	Hardy
Melon, musk	1/2 oz.	60-72	60-72D	1	90-120	50 fruits	Very tender
Melon, water	1 oz.	84-108	84-108D	1	110-140	25 fruits	Very tender
Okra (gumbo)	1 oz.	24-36	18-24	1	90-140	30 lbs.	Tender
Onions, green	3 lbs.	18	1	1/2	30-40	1200 plants	Hardy
Onion seed	1 oz.	12-18	2-3	1/2-1	140-160	75 lbs.	Hardy
Onion sets	2 qts.	12-18	2-3	1	45-75	100 lbs.	Hardy
Parsley	1/4 oz.	12-18	3-6	1/8	90-100	50 lbs.	Hardy
Parsnip	1/2 oz.	18-24	3-5	1/2-1	140-160	100 lbs.	Very hardy
†Peas	1-2 pts.	24-36	1-2	2	75-100	40 lbs.	Hardy
Pepper plants (B)	1/4 oz.	18-24	15-20	1/4	140-150	120 peppers	Half hardy
Potato, Irish	5-8 lbs.	28-36	12-18	4-5	120-140	75 lbs.	Half hardy
Potato, sweet	75 slips	36-60	14-18	3-4	140-150	100 lbs.	Tender
Pumpkin	1/2 oz.	84-108	84-108D	1	90-120	100 fruits	Tender
†Rhubarb	1 oz.	12-18	1-2	1/2-1	30-65	1200 roots	Hardy
Rhubarb plants (A)	33	36-60	36	2-3	365	100 lbs.	Very hardy
Rutabaga	1/2 oz.	18-24	6-8	1/2-1	60-75	150 lbs.	Hardy
Salsify-veg oyster	1 oz.	18-24	2-4	1/2-1	140-160	75 lbs.	Very hardy
†Spinach	1 oz.	12-18	11/2-2	1	60-80	50 lbs.	Hardy
Squash, bush	1/2 oz.	36-48	36-48D	1	60-65	100 fruits	Tender
Squash, winter	1/2 oz.	84-120	84-4	1	125-140	100 fruits	Tender
Tomato (B)	35	36-48	24-48		150-170	200 lbs.	Very tender
Turnip	1/2 oz.	12-24	2-4	1/4-1/2	60-75	100 lbs.	Hardy

†Make successive sowings.

(A) Buy plants from reliable nursery.

(B) Buy plants from local seed store or market gardener.

(D) Plant in hills.



Locating the Garden

Any vegetable garden plan must be based on your having available a plot of proper size, in a sunny, well-drained location possessing a loamy soil that is crumbly and easy to work. If you do not possess such a plot you may be able to arrange for one in a nearby location or local community garden. Without these essen-

tials it is better to confine your activities to raising suitable flowers, which are easier to grow. *Do not dig up your lawn to make a vegetable garden.* The soil beneath is almost always unsuitable and your Government advises strongly against such action.

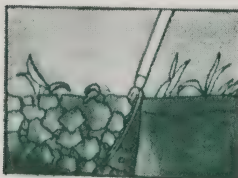
Preparation of the Soil

With your plot located and measured off, you are ready to start the thorough soil preparation which is essential to the complete success of any growing plant. Improper preparation probably causes more garden failures than any other factor except, possibly, cultivation.

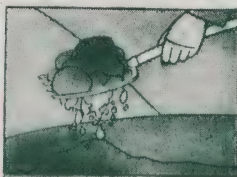
Begin by spading to a depth of 8" to 10" with a good spading fork or spade. Sink the tool straight down (don't scoop) and use the ledge of firm soil behind it to pry against. Take modest sized bites—it's quicker in the end. Lift

each load of earth up and turn it completely over in order to break it up, bury the richer top soil and cover completely any manure, compost or refuse you are spading in.

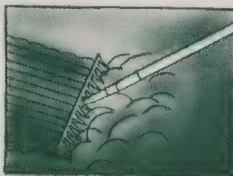
After spading, rake the ground *at once* and do it thoroughly in order to break the top soil into smaller particles. Prompt raking prevents formation of hard, dried lumps. After raking, turn the rake over and smooth and level off the bed with the flat top edge. Regardless of what pattern rake you use, be sure that it is sturdy



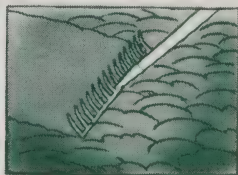
Sink tines straight down and use ledge of hard ground to pry against.



Thoroughly breaks up soil when turning it over—eliminates pounding.



Curved teeth are best to pulverize soil as they tend to dig in.



Flat head smooths and levels off the bed, ready for planting seed.

for it must stand rough usage and pounding. If you intend to work in any commercial fertilizer, rake first then spread the fertilizer evenly and work it into the soil with the rake. If you want to get the fertilizer you are adding down

4 or 5 inches, use either a 4-tine speedy cultivator or a 5-tine adjustable cultivator, instead of a rake. These cultivators will do as thorough a job of cutting in as will a farmer's disc harrow. (Shown on Page 15.)

Fertilizing

To obtain successful growth of vegetables, the soil must contain plant food of the proper kind and in proper amounts. Some soils already contain everything needed, others do not and the missing element or elements must be added if one wishes to obtain maximum growth and best results.

The three principal elements needed are nitrogen, phosphorus and potash. There are many ways to add this plant food, such as barnyard manure, wood ashes, bone meal, dried sheep manure, cottonseed meal, and many other substances. However, for the average home gardener, it is much more satisfactory to buy commercial plant food.

These commercial plant foods are practically odorless and have a fine granular texture that makes it easy to distribute them evenly. Composition of such fertilizers is designated by

formulas which tell you the percentage of the three major food elements. Thus a 4-12-4 analysis means that it contains 4% nitrogen, 12% phosphorus and 4% potash. The other 80% is made up of material required to carry the active fertilizer elements.

Before the war, this 4-12-4 analysis was the most popular for general garden use. War Production Board specifications now require a 3-8-7 analysis called "Victory Garden Special," which is to be used only for the growing of food products, but it is very possible that this WPB ruling will also be modified before spring planting starts. Consult your dealer.

If in any doubt about the quality of your soil, send a sample to your state agricultural school or experiment station for free analysis. Send about a pound, made up of small amounts from various parts of your garden to give an average.

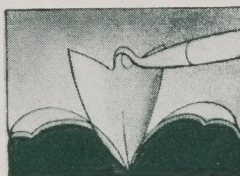
Planting

Vegetables are easily cultivated when planted in straight rows which can be made by stretching a string about 6 inches above the row and opening a furrow of the desired width and depth just beneath the string. Space your furrows carefully according to your paper plan.

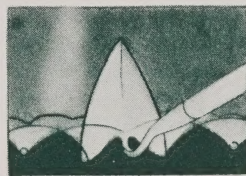
For making your seed rows, use a warren hoe which opens a neat furrow with its point. Plant the seed, then turn the hoe over so that its two "ears" straddle the furrow and it will pull soil back in to cover the seed — a time-saver.

For best results it is necessary to plant when

the soil is moist. The proper depths for planting seed, the amount of seed to plant, together with practical spacing distances between rows are all given in the planting table on Page 11.



Opening seed drills
with Warren hoe.



Covering seed drills
with top ears.

Cultivating

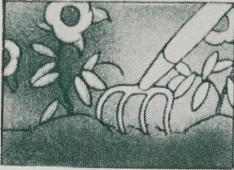
The purpose of cultivating is to facilitate the release of food elements in the soil by aeration and stirring, to keep the surface of the ground from caking and baking, to conserve subsoil moisture and to eradicate weeds. Thus, regular and thorough cultivation is absolutely essential to proper success.

Begin early, keep the cultivation up and never give the weeds a chance to get ahead of you.

Every weed that grows is robbing the soil of just that much plant food and moisture which ought to be going into the vegetables. It will shorten your hours of work if you will cultivate as soon after every rain as the ground can be worked without stickiness. This promptness will also save much watering since well-cultivated ground is a natural moisture-protecting mulch. The fastest, easiest and best way to do this cultivating between plant rows is with a 4-clawed

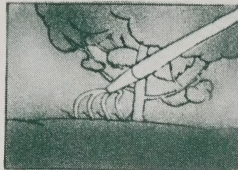
tool called a "Speedy Cultivator." You merely draw it along the ground. This causes its sharp claws to dig in and effectively break up the soil without any need for lifting and chopping—a priceless labor-saving invention. For hilling, weeding and general work you will, of course, need a regular garden hoe. When your soil is

stiff or hard from a dry spell you will save yourself much trouble and irritation by investing in a 2-prong, forged weeding hoe which has two strong prongs on one end and a heavy blade on the other that will easily penetrate anything softer than concrete, dig out weeds by the roots and break up hard lumps and crust.



SPEEDY CULTIVATOR

Just draw it through the ground.

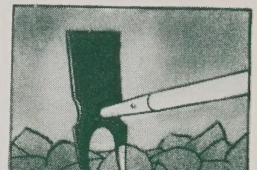


Reaches the hard-to-get-at places.



2-PRONGED WEEDING HOE

For hilling and digging out weeds by roots.



Loosens hard or stony ground easily.

Vegetable Storage

Storing vegetables is both cheaper and easier than canning if they are to be eaten during their natural storage period, although with some vegetables the quality is better if they are canned. Special late plantings are made for winter storage so that the crops will go into storage in as nearly perfect condition as possible. Only sound, high quality vegetables are worth storing. Beets, carrots, cabbage, parsnips, potatoes, winter radishes, rutabagas, salsify, and turnips may be stored in a cool, well-drained, frost-proof cellar that has a *moist* atmosphere. The moisture keeps these crops from shriveling.

Celery and endive are dug with a little soil on their roots and set in a cool, well ventilated

shed or cellar. The soil is watered lightly from time to time, but the leaves and stalks kept dry. Onions require a cool, *dry* place for storage. Sometimes the attic is used for this.

Sweet potatoes, pumpkins, and squashes keep best in a *warm*, dry place such as a shelf near the furnace. Plenty of ventilation is needed also. Small quantities of vegetables can be stored outdoors. A handy way is to sink a box or barrel about half its depth in the ground. Put the vegetables in and put on top of them a mattress cover made of burlap bags stuffed with straw. Cover over with a 6-inch layer of clean straw or leaves, then top with dirt to hold in place.

TOOLS ARE SCARCE — GIVE THEM CARE AND REPAIR

This year, the patriotic home gardener will do his best with the tools he already owns. Most homes have at least one of the tools shown in each group on the next page for digging, raking, hoeing and cultivating. The thing to do now is to use them, and take care of them, properly.

First, Repair Any Broken Tools: Provided the steel head is sound, any rusty, broken-handled old tool can be made just as good as new. Take it to the hardware or seed store and tell them you want a Right Repair Handle to fit it.

If it is a tool made by us, order the number of repair handle stamped on the old handle and we guarantee that your repaired tool will have the perfect feel and balance of the original tool. If your dealer isn't equipped to make the repair, write for our free instruction pamphlet "New Tools for Old." It shows you how, with pictures.

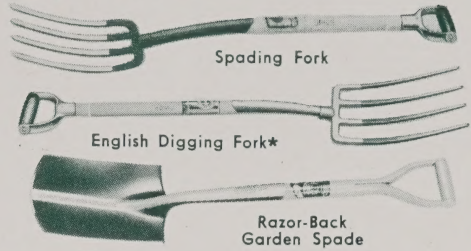
Keep Your Tools in Shape: A little care insures service for the duration. Hang tools up when not in use to prevent warping of handles. Scrape off dirt when laying away. Keep edges and points sharp with either an abrasive stone or file. Don't abuse by hard pounding or prying. Remember your garden tools are now weapons in an all-out war.



UNION Right Repair Handles Will Perfectly Repair Any Tool We Make

1—A Digging Tool

All three of these are suitable for spading. If your soil is rather light and easily pulverized, the spading fork will serve. For heavy and gummy soils the English digging fork, with heavy square tines, or the garden spade, will be more suitable. The forks are easier to sink and break up the soil more readily than a spade.



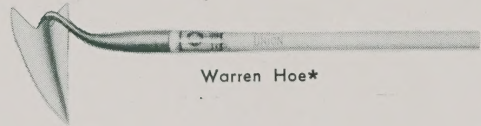
2—A Strong Rake

Personal preference dictates the style of rake to use as the bow pattern is equally as good as the level head. Teeth should be slightly curved to dig in, making it easy to pulverize the soil. Entire head should be a one-piece forging to stand hard usage.



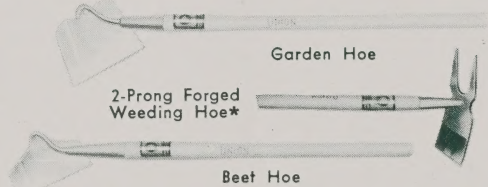
3—A Warren Hoe

The ideal tool for planting. The sharp pointed end of the triangular blade is used to make the seed rows. After planting, turn the hoe over, so that the "ears" straddle the row, and cover the seeds with soil. Also used to some extent for cultivating and weeding.



4—Garden Hoes

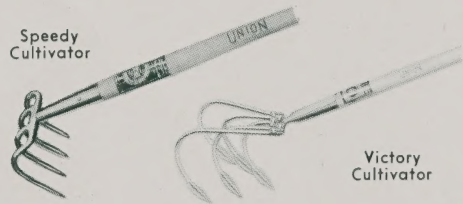
The basic garden tool is the hoe. It will be in use more than any other tool. The gardener needs at least two—a regular garden hoe for general work and a heavier 2-prong weeding hoe for breaking heavy or baked soil and for deep digging. Many people use the sugar beet hoe for general purposes because its "ears" have been sheared off to permit working under low-growing plants, such as beets and carrots, with-



out injury to the top growth. It is sharp on three sides and makes a very handy, useful tool.

5—Cultivators

These two tools are the most time-saving items in the entire garden tool setup for they relieve to a great extent the job of keeping down weeds during the growing season and maintain a dirt mulch over the garden surface to conserve moisture in the subsoil. It is not necessary to lift these tools up in the air and chop as with a hoe. The "Speedy Cultivator" is the most popular of all garden tools. The "Victory Cultivator" is designed to fill the needs of gardeners whose plots are not large enough to warrant the purchase of a wheel cultivator, yet where a good



deal of ground must be covered. The tines of this tool are adjustable to the work at hand. The middle tine, or tines, can be removed in order to straddle the row.

Suggested by THE UNION FORK & HOE CO., Columbus, Ohio
Makers of UNION Farm and Garden Tools, SPEEDLINE Garden Tools, RAZOR-BACK Shovels

WHAT YOUR FAMILY NEEDS IN VITAMINS EVERY DAY

(Courtesy of Better Homes
& Gardens Magazine)

VITAMINS IN FOODS

FOOD	AMOUNT	A	B ₁	C	G or B ₂	Niacin
		I. U.	Micro- gm. ¹	Mg.	Microgm. ¹	Mg.
Apple, fresh	1 medium	40-100	20-55	5-8	+	0.50
Apricots, fresh	2 medium	3,000-8,000	25-35	1-3.5	105	
Apricots, dried	1/2 cup packed	6,000-15,000	60-120	2-12	240-300	
Asparagus, fresh	12, 5" stalks	300-700	150-180	15-40	100-150	
Avocado	1/2 pear, 4" long	110	100-200	2-8	140	
Bananas	1 medium	160-400	50-100	7-8	45-80	
Beans, Limas, Green	1/2 cup	500	345	30	300	
Navy, baked	1/2 cup	40-70	132		+	
Snap or String	3/4 cup	800-1,800	55-95	10-20	65-150	
Soybeans, dried	1/2 cup	100	1,200		900	4.85
Soybeans, green	1/2 cup	200	525	40	300	1.99
Beef, lean	Av. serving	10-50	110-210		200-260	4.90
Beets, roots	2, 2" diam.	100	25-95	3-5	125	
Beet tops, cooked	1/2 cup	10,000	50	35	210	
Bread, white, milk	1 slice, 3/8"	5	30		5	0.14
Bread (milk), enriched	1 slice, 3/8"	5	83		5	0.68
Bread, whole-wheat	1 slice, 3/8"	33	120		39	0.34
Broccoli	2, 5" stalks	1,300	99	50	420	
Brussels sprouts	1 cup	300-500	171	13-50	+	
Butter	1 tablespoon	500-714				
Cabbage, Chinese	3/8 cup shred.	2,800	30	30	75	
Cabbage, new	3/4 cup shred.	40	10	12.5	90	
Cabbage, white	3/4 cup shred.	10	40	12.5	45	0.15
Cantaloupe	1/3 medium	300	60	30	60	
Carrots	1 medium	2,200-4,000	60-140	3-5	50-90	0.50
Cauliflower	3.5 oz.	35-60	130-200	48-94	150-220	
Celery, stalks	4 medium	5-50	20-50	6-8	30-55	
Chard leaves, fresh	1 1/2 cups	23,000	50	5.0	138	
Cheese, Cheddar type	3" x 2" x 1"	2,000-4,000	40-50		450-600	
Cheese, cottage, skim	1/2 cup	60-80	+			
Cranberries, fresh	1 cup	28	50	10		
Cream, light (18.5%)	1/2 cup	1,000-1,500	(30-40)	1-2	(150-200)	
Dandelion greens	1/2 cup cooked	28,000	50	40	225	
Dates, dried	14 dates	60-300	60-100			
Eggs	2 medium	1,000-2,000	140-160		280-420	6.50
Endive (escarole)	1/4 small head	23,100	50	7	282	
Flour, white	3/4 cup (3.5 oz.)		60-100		40	0.35
Flour, enriched	3/4 cup (3.5 oz.)		365		40	1.32
Flour, whole-wheat	3/4 cup		330-500		100-200	5.33
Flour, rye	1 cup		170		150	1.30
Grapefruit	1/2 medium	0	69	42.5	Trace	
Grapefruit juice	1/2 cup	0	75	45	Trace	
Haddock, fresh	1/4 pound	7	75		198	
Halibut	4" x 1 3/4" x 3/4"		40		222	
Ham, lean, fresh	4 1/2" x 3" x 1/4"		940		300	6.70
Ham, smoked, med. fat	4 1/2" x 4 1/2" x 1/4"		1,428		180	
Kale, cooked	1 cup	36,260	30	50	420	
Kidneys	3.5 oz.	500-1,000	400-500		1,700-2,200	9.10-16.90

RECOMMENDED DAILY ALLOWANCES FOR VITAMINS¹ (COMMITTEE ON FOODS AND NUTRITION, NATIONAL RESEARCH COUNCIL)

	A	B ₁	C	G or B ₂	Niacin
	International Units		Milligrams		
Adults	5,000	1.2-2.3	70-75	1.8-3.3	12-23
Adolescent girls and boys	5,000-6,000	1.2-2.0	80-100	1.8-3.0	12-20
Children (1-12 years)	2,000-4,500	0.6-1.2	35-75	0.9-1.8	6-12
Infants (under 1 year) ²	1,500	0.4	30	0.6	4
Pregnancy Lactation	6,000-8,000	1.8-2.3	100-150	2.5-3.0	18-23

¹Vitamin D: 400-800 I.U. for infants and for women during pregnancy and lactation.
400 I.U. for older children and adults should probably be provided when not available from sunshine.

²Needs—increased from month to month and should be built up gradually to allowances given for 1 year.

VITAMINS IN FOODS

FOOD	AMOUNT	A	B ₁	C	G or B ₂	Niacin
		I. U.	Micro- gm. ¹	Mg.	Microgm. ¹	Mg.
Lemon juice	2 tablespoons		7-22	13-15		
Lettuce, green	3.5 oz.	4,000	75	12.5	225	
Lettuce, bleached	1/4 head (3.5 oz.)	100	75	12.5	45	
Liver, beef & veal	3.5 oz.	13,000-34,000	267-520	+	2,400-3,000	17.80-25.00
Milk, whole, fresh	1/2 cup	160-225	40-65	2.1-2.2	195-240	0.30
Milk, irradiated, evaporated	1 cup (8 oz.)	1,082	129	3.10	999	
Mustard greens	1/2 cup cooked	440	138	60	450	
Oatmeal, dry	1/3 cup	2	75		15	0.25
Orange (or juice)	1 med. or 1/2 cup	50-400	75-145	52-56	28-62	
Oysters	6	150-300	200-300	3		
Parsley	1/10 bunch (5")	7,000		17.5		
Parsnips	1/2 cup diced	Trace	120	22.5		
Peaches, yellow	1 medium	1,000-2,000	20-70	7-10	45	
Peanuts or peanut butter	3.5 oz.	360	500-600		100-200	10.06
Pears, fresh	1 medium	10-15	30-95	3-5	20-150	
Peas, canned (with liquor)	3/4 cup	1,000	40	5	300	
Peas, green	3/4 cup	1,000-1,300	270-495	15-25	150-250	
Peppers, green, red	1 large	5,000	30	125-150	120	1.17
Pimiento	3 tablespoons	7,500	15	150	30	
Pineapple, canned	2 slices	20-30	63	10	20-30	
Pineapple juice, canned	3/4 cup (6 oz.)	117	300	12	40	
Pork, lean	1 med. chop	680-1,150			220-265	6.60
Potatoes, sweet	1/2 medium	3,600	70	8	99	
Potatoes, white	1 medium	30-50	95-165	7-15	30-50	1.00
Prunes, dried	6	200-1,200	88-112	0-4	25-125	
Pumpkin, canned	1/2 cup	5,000	54	5	120	
Raisins, seedless	1/2 cup	100	200	0	150	
Salmon, red, canned	1/2 cup flaked	325	Trace	0	225	6.00
Sauerkraut	2/3 cup	25	30	5	60	
Spinach, cooked	1/2 cup	6,600	50	60	300	
Squash, winter	1/2 cup cooked	2,800	48	3	46	
Squash, summer	1/2 cup cooked	420	525	3	52	
Tomatoes	1 medium	500-1,200	70-115	21-24	37-50	0.50
Tomato juice, canned	1/2 cup	900	33	12.5	36	
Tuna fish	1/2 cup flaked		+		(200)	
Turnips, white	1 medium	0	36	30	36	
Turnip greens	1/2 cup cooked	7,400	138	16.6	900	
Watercress	5 sprigs	160-600	12-18	5.4-8.2	19-38	
Wheat germ	4 tablespoons	133	1,333		150	1.33
Whole Wheat (entire)	3.5 oz.	20-25	500-660		100-220	
Whole-wheat cereal (enriched)	1 oz. serving		200		30	1.2
Yeast, fresh	1 cake	3,100	450		150	50.00

¹ 1,000 micrograms (microgm.) = 1 milligram (mg.).